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09/832,237	04/10/2001	Sung-Ho Choi	678-646 (P9761-US/STN)	8975

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EXAMINER

MOORE, IAN N

ART UNIT PAPER NUMBER

2661

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/832,237	<b>Applicant(s)</b> CHOI ET AL.	
	<b>Examiner</b> Ian N. Moore	<b>Art Unit</b> 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-5,7,8,13 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 and 17-20 is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Decker (U.S. 6,195,338).

**Regarding Claim 1**, Decker discloses a method for determining by a UTRAN a persistence value (see FIG. Variables p(i) and/or persistent rule P) for adjusting a number of access preambles (see FIG. access requests) from a plurality of UEs (see FIG. number of active mobile stations M, n(i); see col. 2, lines 50-65) requiring assignment of a common packet channel (CPCH) (see col. 2, lines 35-40; an access channel), the method comprising the steps of:

counting the number of the access preambles detected in an access preamble period having a predetermined period for each transport format (see FIG. and col. 2, lines 44-56; note that the number of access messages/preambles received over a time interval are counted by the mobile radio network for each radio frame/format); and

determining the persistence value based on the number of counted access preambles for each transport format (see FIG. Variables p (i) and/or persistent rule P; see col. 2, lines 49 to col. 3, lines 17; note that the base station B determines the persistence rule P and/or variables p (i)

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parameters according the counted access messages/preambles requests for each radio frame/format); and

transmitting the determined persistence value to the UEs (see col. 3, lines 18-30; mobile stations  $n(i)$ ) in a cell controlled by a Node B (see FIG. a base station B within a radio network; see col. 2, lines 44-47; see col. 3, lines 7-35; persistence rule  $P$  and/or variables  $p(i)$  parameters are send to mobile stations  $n(i)$ ).

**Regarding Claim 5**, Decker discloses a method for determining by a UTRAN a persistence value (see FIG. Variables  $p(i)$  and/or persistent rule  $P$ ) for adjusting a number of CD (collision Detection) preambles (see FIG. Detection of collision; see col. 2, lines 35-42) from a plurality of UEs (see FIG. number of active mobile stations  $M$ ,  $n(i)$ ; see col. 2, lines 50-65) requiring assignment of a common packet channel (CPCH) (see col. 2, lines 35-40; an access channel), the method comprising the steps of:

counting the number of the CD preambles detected in an access preamble period having a predetermined period for each transport format (see FIG. and col. 2, lines 44-56; note that the number of collision detection information in the access messages/preambles received over a time interval are counted by the mobile radio network for each radio frame/format); and

determining the persistence value based on the number of counted CD access preambles for each transport format (see FIG. Variables  $p(i)$  and/or persistent rule  $P$ ; see col. 2, lines 49 to col. 3, lines 17; note that the base station B determines the persistence rule  $P$  and/or variables  $p(i)$  parameters according the counted collision detection information access messages/preambles requests for each radio frame/format);

transmitting the determined persistence value to the UEs (see col. 3, lines 18-30; mobile stations n (I)) in a cell controlled by a Node B (see FIG. a base station B within a radio network; see col. 2, lines 44-47; see col. 3, lines 7-35; persistence rule P and/or variables p (I) parameters are send to mobile stations n (I)).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 4, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Decker in view of Parsa (US 20040081115A1).

**Regarding claims 3 and 7**, Decker discloses persistence value is a unit of channel (see col. 3, line 35-55). Decker does not explicitly disclose physical common packet channel.

However, Parsa teaches physical common packet channel (PCPCH) (see page 2, paragraph 21; see page 3, paragraph 38; see page 4, paragraph 42; see page 8, paragraph 113; PCPCH). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize PCPCH to carry CPCH, as taught by Parsa in the system of Decker, so that it would provide fast acquisition indication, and to avoid collision; see Parsa page 3, paragraph 38; page 1, paragraph 6.

**Regarding Claims 4 and 8**, Decker discloses persistence value is a unit of channel (see col. 3, line 35-55). Decker does not explicitly disclose channel set.

However, having channel set is well known in the art. In particular, Parsa teaches CPCH set (see page 6, paragraph 71,73; page 8, paragraph 111-112). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize CPCH, as taught by Parsa in the system of Decker, so that it would provide channel resource assignment based on the traffic demand projection, and to avoid collision; see Parsa page 6, paragraph 71; page 1, paragraph 6.

**Second set of rejection**

5. Claims 1, 3, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dupont (U.S. 5,729,542) in view of 3GPP'321v3.2.0 (ETSI TS 125 321 version 3.2.0).

**Regarding Claim 1**, Dupont'542 discloses a method for determining by a UTRAN a persistence value (see FIG. 4, P-Persistence parameter) for adjusting a number of access preambles (see FIG. 5, number of access requests) from a plurality of UEs (see FIG. 1, mobile station 105) requiring assignment of a common packet channel (CPCH), the method comprising the steps of:

counting the number of the access preambles detected in an access preamble period having a predetermined period for each format (see FIG. 5, access request period which is predetermined access burst period 505; see col. 4, lines 54-56; see col. 6, lines 60 to col. 6, lines 12; note that the number of access messages/preambles within a predefined access burst period are counted by the base station for each frame/format); and

determining the persistence value based on the number of counted access preambles for each format (see FIG. 4, P-Persistence parameters; see col. 4, lines 48-54, 56 to col. 6, lines 12;

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note that the base station determines the persistence/probability parameters according the counted access messages/preambles requests for each frame/format);

transmitting the determined persistence value to the UEs in a cell controlled by a Node B (see FIG. 2, BSS 220 and/or serving GSN 230; see col. 3, lines 35-60; see col. 6, lines 1-10; the persistence/probability parameter are transmitted to the subscribers by BSS/GSN).

Dupont'542 does not explicitly disclose transport format (TF). However, 3GPP'321v3.2.0 standard teaches transport format (TF) (see FIG. 4.2.3.1.1-2 for UE side; FIG. 4.2.4.1.1, 4.2.4.2.1 for UTRAN side with Transport format (TF) at MAC architecture; section 4.2.3.1, 4.2.3.2, 4.2.4.1, 4.2.4.2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize TF at MAC standard architecture, as taught by 3GPP'321v3.2.0 in the system of Dupont'542, so that it would dynamically share the resources selecting the transport format to be used in each transmission time interval; and to ensure message associated with a given class are sent on the appropriate signature and time slots; and to provide flow control; see 3GPP'321v3.2.0 page 9, section 4.2.1; page 10, section 4.2.3.1; page 13, section 4.2.4.1 .

**Regarding claim 3**, Dupont'542 discloses persistence value is a unit of channel (see col. 5, line 62 to col. 6, line 6).

Dupont'542 does not explicitly disclose physical common packet channel. However, 3GPP'321v3.2.0 teaches physical common packet channel (see FIG. 4.2.3.1 page 9-10, paragraph 4.2.3, 4.2.3.1; see FIG. 4.2.4.1, paragraph 4.2.4; see FIG. 4.2.4.1.1; table 8.3.1.1; see page 23, paragraph 8.3.2; logical CPCH is carried by physical CPCH). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize

physical common packet channel of MAC standard architecture, as taught by 3GPP'321v3.2.0 in the system of Dupont'542, so that it would identify the UEs, Mux/Demux and dynamic transport channel switching at UTRAN side, and it would also provide TF selection, priority handling data of user, identification and Mux/Demux at UE side; and to provide flow control; see 3GPP'321v3.2.0 page 19-20, section 6.2.1-2; page 10, section 4.2.3.1; page 12, section 4.2.4 .

**Regarding claim 4**, Dupont'542 discloses persistence value is a unit of channel (see col. 5, line 62 to col. 6, line 6).

Dupont'542 does not explicitly disclose channel set. However, 3GPP'321v3.2.0 teaches CPCH set (see FIG. 4.2.3.1 page 9-10, paragraph 4.2.3, 4.2.3.1; see FIG. 4.2.4.1, paragraph 4.2.4; see FIG. 4.2.4.1.1; table 8.3.1.1; see page 23, paragraph 8.3.2; CPCH). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize CPCH of MAC standard architecture, as taught by 3GPP'321v3.2.0 in the system of Dupont'542, so that it would identify the UEs, Mux/Demux and dynamic transport channel switching at UTRAN side, and it would also provide TF selection, priority handling data of user, identification and Mux/Demux at UE side; and to provide flow control; see 3GPP'321v3.2.0 page 19-20, section 6.2.1-2; page 10, section 4.2.3.1; page 12, section 4.2.4 .

6. Claim 5, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dupont'542 in view of Parsa.

**Regarding Claim 5**, Dupont'542 discloses a method for determining by a UTRAN a persistence value (see FIG. 4, P-Persistence parameter) for adjusting a number of access preambles (see FIG. 5, number of access requests) from a plurality of UEs (see FIG. 1, mobile



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station 105) requiring assignment of a common packet channel (CPCH), the method comprising the steps of:

counting the number of the access preambles detected in an access preamble period having a predetermined period for each format (see FIG. 5, access request period which is predetermined access burst period 505; see col. 4, lines 54-56; see col. 6, lines 60 to col. 6, lines 12; note that the number of access messages/preambles within a predefined access burst period are counted by the base station for each frame/format); and

determining the persistence value based on the number of counted access preambles for each format (see FIG. 4, P-Persistence parameters; see col. 4, lines 48-54, 56 to col. 6, lines 12; note that the base station determines the persistence parameters according the counted access messages/preambles requests for each frame/format);

transmitting the determined persistence value to the UEs in a cell controlled by a Node B (see FIG. 2, BSS 220 and/or serving GSN 230; see col. 3, lines 35-60; see col. 6, lines 1-10; the persistence/probability parameter are transmitted to the subscribers by BSS/GSN).

Dupont'542 does not explicitly disclose transport format and CD (Collision Detection) preambles. However, Parsa teaches transport format (see page 8, paragraph 112; transport format) and CD (Collision Detection) preambles (see FIG. 3-4, CD preamble; see page 3, paragraph 38-39). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize transport format and CD preamble, as taught by Parsa in the system of Dupont'542, so that it would provide fast acquisition indication, and to avoid collision; see Parsa page 3, paragraph 38; page 1, paragraph 6.

**Regarding claim 7**, Dupont'542 discloses wherein persistence value is determined in a unit of channel as described above in claim 5.

Dupont'542 does not explicitly disclose physical common packet channel. However, Parsa teaches physical common packet channel (PCPCH) (see page 2, paragraph 21; see page 3, paragraph 38; see page 4, paragraph 42; see page 8, paragraph 113; PCPCH). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize PCPCH to carry CPCH, as taught by Parsa in the system of Dupont'542, so that it would provide channel resource assignment based on the traffic demand projection, and to avoid collision; see Parsa page 6, paragraph 71; page 1, paragraph 6.

**Regarding claim 8**, Dupont'542 discloses wherein persistence value is determined in a unit of channel as described above in claim 5.

Dupont'542 does not explicitly disclose channel set. However, having channel set is well known in the art. In particular, Parsa teaches CPCH set (see page 6, paragraph 71,73; page 8, paragraph 111-112). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize CPCH, as taught by Parsa in the system of Dupont'542, so that it would provide channel resource assignment based on the traffic demand projection, and to avoid collision; see Parsa page 6, paragraph 71; page 1, paragraph 6.

***Allowable Subject Matter***

7. Claims 13 and 17-20 are allowed.

***Response to Arguments***

8. Applicant's arguments with respect to claim 1,3,4,5,7, and 8 have been considered but are moot in view of the new ground(s) of rejection.

**Regarding claims 1 and 5, the applicant argued that,** "...Transport Format is not simply a frame. A Transport Format is a form used by the physical layer. A "Transport Format" is not a "transport block". A Transport Format is filled with information related to an amount of transmission data and a data rate...Decker does not teach or suggest the foregoing feature..." in page 2, last paragraph.

**In response to applicant's argument** that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., transport format is filled with information related to an amount of transmission data and a data rate) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

**In response to applicant's argument, the examiner respectfully disagrees** with the above argument. In accordance with Decker FIG. mobile station and radio network are communicating via a radio frame, which is transported between physical layers. Any specific feature of transport format is not recited in the claim. Thus, examiner asserts the transport format as transport frame/block since they both have the same functionality.

**Regarding claim 5, the applicant argued that,** "...Dupont is mistakenly relied upon for disclosing that a persistence value is based on different forms, that is each Transport format

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classification... it cannot be easily derived that a persistence value can be determined according to a transport format...” in page 3, paragraph 2.

**In response to applicant's argument, the examiner respectfully disagrees** with the argument above. Dupont discloses determining the persistence value based on the number of counted access preambles for each format (see FIG. 4, P-Persistence parameters; see col. 4, lines 48-54, 56 to col. 6, lines 12; note that the base station determines the persistence parameters according the counted access messages/preambles requests for each frame/format). Parsa discloses Parsa teaches transport format (see page 8, paragraph 112; transport format) and CD (Collision Detection) preambles (see FIG. 3-4, CD preamble; see page 3, paragraph 38-39), and utilizing persistence algorithm (see page 8, paragraph 111). Thus, the combined system of Dupont and Parsa discloses the claimed limitation.

In view of the above, **the examiner respectfully disagrees** with applicant's argument and believes that the references as set forth in the above rejections are proper.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N. Moore whose telephone number is 571-272-3085. The examiner can normally be reached on 9:00 AM- 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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